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10 LENOVO (UNITED STATES), INC.

11 UNITED STATES DISTRICT COURT
12
13 NORTHERN DISTRICT OF CALIFORNIA

14 IN RE: LENOVO ADWARE LITIGATION,

Case No.5:15-md-02624-RMW

15 **LENOVO'S OPPOSITION TO**
16 **PLAINTIFFS' MOTION FOR CLASS**
17 **CERTIFICATION**

18 This Document Relates To: All Actions

19 Date: September 23, 2016
20 Time: 9:00 a.m.
21 Judge: Ronald M. Whyte
22 Courtroom: 6, 4th Floor

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1 **I. INTRODUCTION**

2 This case is about a theoretical software security vulnerability that never materialized.

3 Lenovo makes some of the most reliable and innovative laptop computers in the world. The
4 VisualDiscovery software that is the subject of this case was not written by Lenovo – it was written
5 by defendant Superfish, Inc., with whom Plaintiffs have settled. Lenovo installed the program on 43
6 models of laptops beginning in September 2014. On February 19, 2015, Lenovo discovered that one
7 version of the VisualDiscovery program contained a root certificate protected by a weak password.
8 Lenovo acted swiftly and decisively to remove the software from Lenovo computers. The campaign
9 was successful. **In two years since the software was first installed, no security breach has**
10 **occurred due to Superfish Software on Lenovo computers.**

11 It is also undisputed that information obtained by Superfish from users did not include any
12 personally identifying information (such as name, email address, passwords, or bank account
13 information) – **users remained anonymous**. There is no evidence that any user’s privacy was
14 breached or that users’ personal information was stolen, sold, or misused in any manner. In short, no
15 user was injured by Superfish. Plaintiffs’ class certification request oversimplifies and omits critical
16 facts. Allegations no longer suffice under the rigorous scrutiny required at this stage.

17 There are several major barriers to class certification. **First**, the “all purchasers” classes are
18 breathtakingly overbroad, as the vast majority of members suffered no harm at all. The Ninth Circuit
19 has held that classes cannot be certified if they contain persons who lack injury. **Second**, individual
20 issues are widespread and clearly predominate over common questions. The 43 laptop models varied
21 widely, the software was updated and operated differently over time, Lenovo’s knowledge evolved,
22 consumer usage and environments differed greatly, causation and injury are highly individualized,
23 and consent requires a person-by-person analysis. This is the tip of the iceberg. **Third**, Plaintiffs have
24 not proposed a viable class-wide damages model that meets the requirements of *Behrend v. Comcast*.
25 Their “zero benefit” damages model is utterly subjective, arbitrary and simplistic. It rests on false
26 assumptions, ignores the highly varying and individualized experiences of users, and provides a
27 windfall to unharmed people.

28 The class certification barriers are broad and deep. No class should be certified.

II. FACTS

A. The Theoretical Security Vulnerability That Never Materialized

On February 19, 2015, Lenovo learned that one version of the VisualDiscovery program had a security vulnerability – a self-signed root certificate with a non-unique, easily-guessed password. (Hunt Dep. at 184-85; Ex. 1.)¹ Even Superfish did not know about the password weakness – that part of the code had been written by a vendor retained by Superfish named Komodia, Inc. (the password on every certificate was “komodia”). (Ex. 2.) The password weakness did not enable hacking, but it provided a tool that a potential hacker could use to harm a user.

Lenovo immediately implemented measures to remove VisualDiscovery from the computers (750,000 in the U.S.)² on which it had been installed, at no cost to users. By June 2015, it was removed from 94% of computers. (Ex. 3.) As for the remaining 6%, all such persons received information and tools to remove the program for free. Removal eliminated any security risk.

The risk of a hacker misusing the root certificate was extremely low and would have required a “perfect storm” of circumstances to align simultaneously. (Exs. 4-5; Ex. 45, Malek Decl. ¶¶29-31. 65.) In the two years since VisualDiscovery was first installed, Lenovo has received no indication that a single user (out of five million worldwide) was hacked, or experienced a misuse of private data. None of the Named Plaintiffs experienced a security incident related to Superfish. Thus, in the words of Lenovo Rule 30(b)(6) witness and Distinguished Engineer Jim Hunt, the security risk was “theoretical” and never materialized. (Hunt Dep. at 75.) Superfish used the same word. (Ex. 5.)

B. Two Versions of the Software

The “theoretical” security vulnerability only existed in the Original Version of the VisualDiscovery software. On September 23, 2014, Lenovo and Superfish decided that VisualDiscovery should not function when a user visited “HTTPS” (secure) websites. Superfish shut

¹ Exhibits referenced herein by “Ex. __” are attached to the Declaration of Daniel J. Stephenson. Where depositions are cited, transcript pages are at Exs. 39-43.

² The 797,159 number quoted by Plaintiffs includes Canada (Ex. 9 at 6); removing Canadian purchasers brings the number to 750,134, but there is some unavoidable imprecision. This is not net of returns. Because 80% of the computers were sold to independent resellers (Best Buy, Amazon and others), Lenovo has no record of the identities of most end-users or those who returned their laptops.

1 off the servers to HTTPS functionality that day, and then designed an Updated Version of the
 2 software that would not operate on HTTPS sites. Laptops manufactured on and after November 26,
 3 2014 had the Updated Version.

4 Notably, the Updated Version did not contain the root certificate that had the weak password.
 5 (Exs. 6-7.) The root certificate was necessary only for HTTPS websites, and with that functionality
 6 absent, there was no need for the certificate. (Ex. 8.) Thus, there was no security vulnerability with
 7 the Updated Version. (Malek Decl. ¶30.)

8 C. Lenovo Provided Free Fixes and Other Benefits

9 After February 19, 2015, Lenovo published a free program that completely removed
 10 Superfish from all affected computers. It worked with Microsoft, McAfee and Symantec to update
 11 their antivirus programs to automatically eliminate VisualDiscovery. Lenovo offered a free 6-month
 12 McAfee subscription or extension to all users, at a value of \$40-45 apiece. Approximately 3,000
 13 people took Lenovo up on that offer. That program cost Lenovo \$500,000. (Ex. 9 at 8.)

14 Lenovo also promised consumers that (1) it would not preload Superfish software in the
 15 future, and (2) it would henceforth move to a “cleaner” PC with less preloaded software. (Ex. 10.)
 16 Because of this, the high cost to Lenovo resulting from the Superfish debacle,³ and the demise of
 17 Superfish as a company, there is no chance for a repetition of the events underlying this suit.

18 D. The Software Did Not “Spy” or Collect Personal Information

19 Plaintiffs allege that Superfish was “spying” on users, taking their personal and banking
 20 information and selling it to third parties. These allegations have been thoroughly debunked by the
 21 actual facts. Neither Lenovo nor Superfish received, collected, stored, or transmitted any personal
 22 information of users. (Exs. 1, 8, 11-15; Ex. 48, Daniel Decl. ¶4.) Users were completely anonymous.
 23 (Superfish Privacy Policy, Ex. 16 - “Superfish will collect . . . anonymous information;” Hunt Dep. at
 24 151 - userid is “anonymous;” Ex. 12 - “it does not know who the user is.”) No user has claimed or
 25 shown any harm from loss or misuse of personal information. The software was not “malware.” (Ex.
 26 13; Malek Decl. ¶87.) It was “TRUSTe certified” by an independent security organization. (Ex. 17.)

27
 28 ³ The CAC (¶186) suggests that Lenovo profited from preloading VisualDiscovery, but in reality,
 Lenovo received zero revenue and zero profit. (Ex. 9 at 6.) The episode was quite costly to Lenovo.

1 E. User Opt-Out and Uninstall Opportunities

2 The VisualDiscovery program presented itself to a user the first time a user's mouse hovered
3 over a product image on select shopping websites. An opt-out screen was presented (Ex. 18), and the
4 data show that approximately 2.2% of users (114,000 worldwide, or 16,000 in the U.S.) affirmatively
5 opted out. (Consolidated Amended Complaint ("CAC"), ¶88; Exs. 19-20.) The software also
6 provided a link to "uninstall" the program and users had the ability to use the "Add/Remove
7 Programs" feature of Windows. (Ex. 21.) The data show that approximately 10% of users (75,000 in
8 the U.S.) uninstalled the program when it first popped up. (Ex. 20.)

9 F. Extensive Use and Enjoyment of the Software by Class Members

10 Although Plaintiffs allege that VisualDiscovery was "almost universally disliked" (CAC,
11 ¶88), this is belied by the actual facts. A large number of users affirmatively used it to save money
12 while shopping. Superfish data show that for the month of November 2014, 327,133 machines
13 "installed" VisualDiscovery (net of opt-outs and removals) and of those, 123,331 (38%) were
14 "active." (Ex. 22.) Activity was recorded in the form of "clicks" – users affirmatively clicking on one
15 or more of the images in pop-ups generated by VisualDiscovery to check out what was presented.
16 This resulted in 208,178 "clicks paid" (1.7 "clicks paid" per active user) in that month. (*Id.*) "Clicks
17 paid" reflect revenue to Superfish from users buying products from online retailers. The bottom line
18 is that over 100,000 purported class members in a single month were choosing to use
19 VisualDiscovery to save money on online purchases.

20 The CAC itself acknowledges that Superfish's online shopping programs generated \$35.3
21 million in 2013 (before Lenovo came along) and \$38 million in 2014. More than 100 million people
22 used the software on a monthly basis. (Ex. 23.) This confirms the fact that many users actually liked
23 the program, used it, and benefited from it.

24 G. Internet Upload and Download Speeds

25 Based on a document dated December 25, 2014, the CAC alleges (¶5) that VisualDiscovery
26 slowed internet upload/download speeds. Lenovo received a report that day from a customer in Japan
27 that had run a test on a single Y50-70 machine. The cursory report stated that with the program
28 disabled, upload and download speeds were faster. No details of test conditions or machine

1 configuration were given. (Ex. 24; Malek Decl. ¶¶80-85.)

2 Lenovo referred the issue to Superfish the same day, and Superfish began working on it. (Ex.
3 25.) However, just three weeks after the report from Japan, Lenovo decided to pull the plug on the
4 entire program, asking Superfish to shut the servers down. On January 19, 2015, that was done. (Ex.
5 26.)

6 Because only three weeks passed between the initial report and the end of the program, very
7 little is known about the upload/download speed issue. “There is not enough information in there to
8 make a -- even a reactional determination as to whether it was a real problem or not.” (Hunt Dep. at
9 152.) The results cannot be generalized to other machines and conditions. (*Id.* at 171-72; Malek Decl.
10 ¶¶82-83.) Upload/download speeds are affected by “an incredible number of variables.” (Hunt Dep.
11 at 171.) The net result to the user will depend heavily on the machine model and configuration, the
12 processor, and what the user is doing with the computer. (Malek Decl. ¶¶40-43, 84.) Most users will
13 not notice any difference,⁴ and the ones who notice cannot quantify it – their perception is purely
14 subjective. (*Id.* ¶¶44, 85.) It does not prevent the user from doing anything.

15 Indeed, the Federal Communications Commission (FCC) has issued a “Broadband Speed
16 Guide” to advise consumers how much download speed they need for “adequate performance” of
17 certain internet activities.⁵ The guide states that for email, a user needs 0.5 Mbps; for normal web
18 browsing, 1 Mbps; for streaming radio and movies, 1.5 Mbps; and for video conferencing or HD-
19 streaming movies, 4 Mbps. Even with VisualDiscovery enabled, the Japanese user obtained more
20 than 12 Mbps (Ex.24), and in Superfish’s lone test, the download speed was 42 Mbps. In other words,
21 users who had VisualDiscovery obtained plenty of browsing speed for most tasks. (Malek Decl. ¶85.)

22 Lenovo had no knowledge of the upload/download speed issue before December 25, 2014.

23 //

25 ⁴ Feng Lee was the Lenovo employee who worked most closely with Superfish. He has a masters
26 degree in computer science. He worked extensively with the VisualDiscovery program for several
27 months, and frequently checked performance data on his laptops. He never noticed any performance
28 degradation. He would not have recommended its installation if he had been aware of any
performance issues. (Ex. 47, Lee Decl., ¶¶5-9.)

⁵ Ex. 30; available at <https://www.fcc.gov/reports-research/guides/broadband-speed-guide>.

1 H. CPU Usage and Battery Life

2 The CAC (¶79) alleges that “Visual Discovery occupied too much CPU usage, and
3 the resulting power consumption would impact battery life.” This, says the CAC, “violated the
4 product specifications of certain Lenovo computer models.” These allegations are misleading.

5 First, the only models where there was any issue about failing to meet the “product
6 specifications” were Yoga 3’s, and VisualDiscovery was never installed on Yoga 3 models. (Ex. 27.)
7 On every model on which it was installed, it passed the relevant specifications. (*Id.*; Malek Decl.
8 ¶78.) The issue only showed up on the Yoga 3. (Hunt Dep. at 19.)

9 Second, when Superfish looked into the issue, it found that CPU usage went up only
10 momentarily while a page was loading (as it does when any page loads), and was only 2.25% on
11 peak, which is “normal.” (Ex. 28.) When the page was loaded, CPU usage “will decrease to 0%.”
12 (Ex. 29.) Therefore, Superfish’s Ronen Daniel concluded, “I do not think it is an issue.” (Ex. 28.)
13 Lenovo agreed: “it is a normal behavior ... I do not think it is an issue.” (Ex. 29.)

14 Third, the CPU/battery issue is widely variable from person to person and computer to
15 computer. (Malek Decl. ¶¶53-55.) Most of the Named Plaintiffs did not experience it. Anyone who
16 operated mostly while plugged in did not experience it. If anyone claims a battery effect, to sort
17 through whether Superfish caused it would require an analysis of “a constantly moving target with
18 literally tens of thousands of variables.” (Hunt Dep. at 166-67.)

19 I. Users Gave Their Lenovo Laptops Good Reviews

20 If users hated the VisualDiscovery pop-ups, or their computers were performing poorly
21 because of it, they had many ways to make their views known. Thousands of users reviewed their
22 laptops either on Lenovo’s website or on resellers’ websites (e.g. Best Buy, Amazon). Most laptops
23 with Superfish preloaded received favorable to excellent reviews (three to five stars out of five).

24 For example, about one-third of purported class members purchased “Yoga 2” laptops. On
25 Lenovo’s website, 2,412 users posted reviews on the Yoga 2 Pro, and the average review was 4.3 out
26 of 5. Eighty-seven percent of customers said they would recommend the product to a friend. (Ex. 31.)
27 Here is a review posted on January 14, 2015 by a Yoga 2 Pro user, well within the class period:
28

Review 28 for Lenovo Yoga 2 Pro

Overall	★★★★★
Performance	★★★★★
Features	★★★★★
Value	★★★★★
Reliability	★★★★★

Best laptop ever purchased

Date: January 14, 2015

" I've owned many laptops in the past 20 years, but my new I7 yoga 2 pro is amazing. I love the speed and the clear screen, "

(Ex. 32.) Note that this class member specifically rated her computer (with Superfish preloaded) at the highest level in "performance" and particularly noted its "speed." Another one also raved about speed and battery life (Ex. 33):

Review 54 for Lenovo Yoga 2 Pro

Overall	★★★★★
Performance	★★★★★
Features	★★★★★
Value	★★★★☆
Reliability	★★★★★

Love It!

Date: November 2, 2014

" I love my new Yoga. It is fast and the battery lasts forever. It's so lightweight and easy to carry around everywhere. "

Some users posted unfavorable reviews, but they were in the minority. For the vast majority of users, their laptops performed satisfactorily with VisualDiscovery on board.

J. Experiences of the Four Named Plaintiffs

a. Two had the Updated Version; one did not have VisualDiscovery at all

Robert Ravencamp and Richard Krause had the Updated Version of VisualDiscovery.⁶ Jessica Bennett had the Original Version, but she uninstalled it the day she first noticed it. (Bennett Dep. at 39, 58.) John Whittle clearly did not have VisualDiscovery on his computer at all. He purchased his laptop on e-Bay, and it contains a large sticker on the bottom that says "REFURBISHED." (Whittle Dep. at 166-67 and Ex. 34.) The history of the machine is unknown. Mr. Whittle could not say whether he had VisualDiscovery on his laptop. (Whittle Dep. at 69.) He never saw it in a list of programs. (*Id.*) He never removed it. (*Id.* at 94.) He never experienced the alleged battery or browsing speed issues. (*Id.* at 95-96.) He never saw the Superfish opt-out screen or any Superfish pop-ups. (*Id.* at 69-71.) The complete absence of pop-ups is inconsistent with the presence of VisualDiscovery. Computer expert Dr. Sam Malek concludes that "Mr. Whittle's computer likely did not have the VisualDiscovery software pre-installed on it." (Malek Decl. ¶¶57-60.)

⁶ Mr. Krause's G510 and Mr. Ravencamp's Y50-70 were both manufactured on December 4, 2014, after the switch to the Updated Version. (Exs. 35-36.)

1 *b. No security or privacy breach*

2 None of the Named Plaintiffs suffered a security incident claimed to be caused by Superfish.⁷
 3 None had any personally identifiable information (PII) stolen or misused.⁸ None of the Named
 4 Plaintiffs spent any money out-of-pocket to remove VisualDiscovery, or for credit monitoring.⁹

5 *c. CPU / battery issue: three did not notice; one said it was “slight”*

6 Messrs. Krause and Whittle generally used their laptops plugged in and had no battery issues.
 7 (Krause Dep. at 65-67; Whittle Dep. at 96.) Ms. Bennett testified that she “did not notice a change in
 8 battery life” before and after VisualDiscovery was removed, and her Yoga 2 battery met her
 9 expectations. (Bennett Dep. at 63.) Only Mr. Ravencamp testified that his battery was affected by
 10 Superfish – the effect was “slight . . . [i]t wasn’t significant.” (Ravencamp Dep. at 159.)

11 *d. Browsing speed: “not significant,” not quantifiable*

12 As noted, Mr. Whittle experienced no issues with internet upload or download speeds. Ms.
 13 Bennett removed VisualDiscovery a mere hours after first noticing it – she claims that her browsing
 14 speed increased after she removed the program, but she cannot quantify it. (Bennett Dep. at 51, 61.)
 15 Mr. Krause vaguely alleges that after he uninstalled VisualDiscovery, pages loaded “just slightly
 16 quicker,” but he could not quantify it. (Krause Dep. at 61-62.) Mr. Ravencamp, who wrote a positive
 17 review of his Y50-70 three weeks after he purchased it (Ex. 37), now claims that VisualDiscovery
 18 reduced his internet browsing speed. He cannot quantify the difference; the speed after removing
 19 VisualDiscovery was “noticeably better, but not significant.” (Ravencamp Dep. at 142.) This “not
 20 significant” difference came after removing VisualDiscovery and “between 5 and 20” other
 21 programs. (*Id.* at 144-45.)

22 The Named Plaintiffs were never prevented from doing anything with their laptops.¹⁰ Some of
 23 their laptops are still being used, and meeting expectations, today. (Bennett Dep. at 34-35.)

24 _____
 25 ⁷ Bennett Dep. at 66-67; Krause Dep. at 68-69, 71-75; Ravencamp Dep. at 160-62; Whittle Dep. at
 26 96-100. Ms. Bennett and Mr. Krause had mysterious credit card charges but do not claim they were
 related to Superfish.

27 ⁸ *E.g.*, Bennett Dep. at 90: “[t]hat’s speculative . . . [n]ot to my knowledge.”

28 ⁹ Bennett Dep. at 67; Krause Dep. at 74; Ravencamp Dep. at 107-08; Whittle Dep. at 98, 101, 146-47.

¹⁰ Bennett Dep. at 28; Krause Dep. at 62-63; Ravencamp Dep. at 78-79; Whittle Dep. at 112-14.

e. Mr. Whittle's fictitious lost profits

Mr. Whittle is singled out in the CAC as someone who suffered more than \$5,000 in damages due to Superfish. (CAC, ¶150.) The CFAA claim hinges on the truth of this allegation. The facts show it to be false. Mr. Whittle was between jobs in late 2014 and allegedly wanted to start a tax preparation business. He never received a dime of revenue from this endeavor, and never began a single return. (Whittle Dep. at 128, 134.) He says he had ten customers (family and friends), but he would have needed 250 to generate \$5,000 in revenue. (Whittle Dep. at 125.) Superfish did not prevent him from doing taxes on his computer, and there is no evidence that he even had VisualDiscovery on his computer. (Malek Decl. ¶¶57-58). While he complained of “slowness” in his refurbished computer, the slowness was unquestionably a hardware issue (he had his motherboard and hard drive replaced). (*Id.* ¶59; Whittle Dep. at 85, 87.) In short, according to expert economist Dr. Thomas Varner, the claim of \$5,000 in lost tax preparation revenue is “highly speculative” (Varner Decl., ¶80) – i.e., fantasy.

III. CLASS CERTIFICATION STANDARDS AND BURDEN OF PROOF

“[T]he trial court must conduct a ‘rigorous analysis’ to determine whether the party seeking certification has met the prerequisites of Rule 23.” *Zinser v. Accufix Research Inst., Inc.*, 253 F.3d 1180, 1186, *amended* 273 F.3d 1266 (9th Cir. 2001) (citation omitted). The proponent of class certification has the burden of affirmatively demonstrating these prerequisites, not just alleging them. *Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541, 2551 (2011) (“Rule 23 does not set forth a mere pleading standard”).

IV. ARGUMENT

A. The Purported Classes Are Overbroad – Full Of Unharmful Persons.

All three purported classes begin with the phrase “all persons who purchased . . .” Two of the classes are nationwide. All three classes cover the entire spectrum of 43 models of laptops. The class definitions are breathtakingly overbroad. The vast majority of members of all three purported classes were not injured by Superfish. Lenovo injured nobody.

The problems presented by the lack of injury are widespread. Most or all of the class members lack **standing**. Lack of injury “can be characterized in a lot of ways.” *Dzieciolowski v. DMAX Ltd.*,

No. 15-2443-AG, p. 6 (C.D. Cal. April 27, 2016). “It could be framed as a lack of commonality, typicality, or adequacy-of-representation ... [i]t could also be characterized as a lack of standing.” *Id.* “But whatever you call it, not having it is a problem.” *Id.* at 7.

1. Named Plaintiffs do not meet the higher burden at this stage for Article III standing.

The standing analysis has two components: one under Article III and the other under Rule 23. *Moore v. Apple, Inc.*, 309 F.R.D. 532, 541-43 (N.D. Cal. 2015). If plaintiffs fail either, a class cannot be certified.

Under a strict Article III jurisdictional analysis, plaintiffs must prove that at least one of the named plaintiffs has suffered a concrete and particularized injury. *Moore*, 309 F.R.D. at 541. In this respect, the fact that the plaintiffs can survive a motion to dismiss is irrelevant. At the class certification stage, the plaintiffs must meet their burden “through evidentiary proof.” *Comcast Corp. v. Behrend*, 133 S. Ct. 1426, 1432 (2013); *see also Evans v. Linden Research, Inc.*, 2012 WL 5877579, *6 (N.D. Cal. Nov. 20, 2012) (at class certification, “Plaintiffs must demonstrate, not merely allege, that they have suffered an injury-in-fact to establish Article III standing to bring the claims asserted on behalf of the [class]”). This is part of the “rigorous analysis” demanded by the Supreme Court.

When the evidence is considered, it is clear that none of the named Plaintiffs can prove an injury that is “concrete, particularized, and actual or imminent.” *Clapper v. Amnesty International*, 133 S.Ct. 1138, 1147 (2013). In a data security case like this one where zero personal information of any plaintiff was hacked or misused, the mere unrealized threat of such an incident is insufficient to confer standing. *Id.* at 1141; *Cahen v. Toyota Motor Co.*, 2015 WL 7566806, at *8 (N.D. Cal. Nov. 25, 2015) (finding no standing: “the entire [hacking] threat rests on the speculative premise that a sophisticated third party cybercriminal may one day successfully hack one of plaintiffs’ vehicles”). Money spent to remediate or avoid the realization of such a threat is also insufficient to confer standing. *Clapper*, 133 S.Ct. at 1143.

None of the four Named Plaintiffs here can establish standing. None of them experienced a security incident related to Superfish. None of them spent any money to remove Superfish or obtain

1 credit monitoring. They were not prevented by Superfish from doing anything on their computers.

2 John Whittle was singled out in the CAC as the lone class member who had allegedly suffered
3 more than \$5,000 in lost profits (from a supposed tax preparation business) due to Superfish.
4 However, when the evidence came in, it became clear that:

- 5 1. Mr. Whittle never had a viable tax preparation business – he lost no profits.
- 6 2. Mr. Whittle’s computer problems were hardware issues unrelated to Superfish.
- 7 3. Mr. Whittle bought a refurbished computer that did not even have Superfish on it.

8 This falls well short of Article III and CFAA standing requirements. With Mr. Whittle falls
9 the entire house of cards for Plaintiffs under Article III.¹¹

10 **2. The class definitions are overbroad because they include persons**
11 **who lack injury and standing.**

12 When we turn to Rule 23, the rule in the Ninth Circuit is that every class member must have
13 Article III standing. *Moore*, 309 F.R.D. at 541-42. “[N]o class may be certified that contains
14 members lacking Article III standing.” *Mazza v. American Honda Motor Co.*, 666 F.3d 581, 594 (9th
15 Cir. 2012) (vacating an order certifying a class). “The class must therefore be defined in such a way
16 that anyone within it would have standing.” *Sanders v. Apple, Inc.*, 672 F.Supp.2d 978, 991 (N.D.
17 Cal. 2009) (emphasis added).

18 The court in *Moore* analyzed this issue in terms of “overbreadth.” Because not all class
19 members were injured, the class definition was “overbroad,” and class certification was denied. *Id.* at
20 543; *see also Opperman v. Path*, 2016 WL 3844326, *12 (N.D. Cal. July 15, 2016) (data privacy case
21 holding that an “overly broad” class that contains “members who have suffered no injury at all”
22 cannot be certified); *Diacakis v. Comcast Corp.*, 2013 WL 1878921, *4 (N.D. Cal. May 3, 2013)
23 (purported class was overbroad because it included putative plaintiffs that had not been deceived by
24 the alleged representations and omissions and thus suffered no injury); *Mazur v. eBay Inc.*, 257

25
26 ¹¹ In addition, Named Plaintiffs Krause, Ravencamp and Whittle purchased their computers before
27 December 25, 2014, when the “upload/download speed” issue first came to Lenovo’s attention.
28 Because Lenovo had no duty (or ability) to disclose something it did not know, they lack standing to
pursue the upload/download speed issue. Named Plaintiffs Bennett, Krause and Whittle lack standing
to pursue a “CPU/battery” performance claim, as they did not experience that alleged effect.

1 F.R.D. 563, 567 (N.D. Cal. 2009) (because the class would include “non-harmed” persons, “the class
2 definition is both imprecise and overbroad”); *Chow v. Neutrogena Corp.*, 2013 WL 5629777, *2
3 (C.D. Cal Jan. 7, 2013) (“the class definitions provided by Plaintiff do not exclude those uninjured
4 class members for whom the product provided the advertised benefits, therefore, the classes, as
5 defined, are unmanageable”).

6 Courts regularly deny certification for overbreadth in “all purchaser” classes. *See, e.g., Kosta*
7 *v. Del Monte Foods, Inc.*, 308 F.R.D. 217, 222 (N.D. Cal. 2015); *Sanders*, 672 F.Supp.2d at 990-91.

8 *a. No injury: security issues*

9 Case law is crystal clear that when an alleged defect presents only a potential problem but
10 does not produce an actual harm to you, then you are not injured. The Ninth Circuit’s opinion in
11 *Birdsong v. Apple, Inc.*, 590 F.3d 955 (9th Cir. 2009) illustrates this point. Plaintiffs there alleged that
12 iPod use could cause “a potential risk of hearing loss.” *Id.* at 960, emphasis added. They hadn’t
13 actually suffered hearing loss; they simply alleged that “iPods have the ‘capability’ of producing
14 unsafe levels of sound” – and this “reduced the value of their iPods.” *Id.* at 961. The Ninth Circuit
15 held that this did not constitute injury. The present case is nearly identical. The parade of horrors
16 presented by Plaintiffs only show that VisualDiscovery could be used by a hacker in a security
17 breach. They present no evidence that it ever was used by a hacker. (Malek Decl. ¶¶15, 29, 31, 70.)

18 No class that contains such a scenario can be certified. *Moore v. Apple* is on all fours with the
19 present case. *Moore* involved an alleged software defect in the iPhone and iPad operating systems
20 that resulted in non-delivery of text messages to former users after they switched to non-Apple
21 devices. Because every iPhone and iPad had this “defect,” plaintiffs claimed that all users were
22 damaged by paying more than they should have for defective machines. Their argument, like that of
23 Plaintiffs here, rested “on two erroneous assumptions”: (a) that all class members had text messaging
24 capability and rights on their devices, and (b) that all class members experienced non-delivery of
25 texts caused by the alleged defect. 309 F.R.D. at 542. Here, half of the class members had a version
26 of VisualDiscovery (the Updated Version) that did not have a root certificate and did not present any
27 security threat. Many users uninstalled the program early, or opted out, or purchased after the
28 Superfish servers were shut down, and were never exposed to any security threat at all. And nobody

1 who was exposed to the potential threat was actually injured by a security breach. As in *Moore*, no
 2 class can be certified because the alleged defect did not produce a classwide security injury.

3 *In re Toyota Motor Corp. Hybrid Brake Mktg. Litig.* is also on point. That case involved
 4 defective braking systems in the Toyota Prius and Lexus HS 250h, which were recalled and given a
 5 software update to remedy the problem. 288 F.R.D. 445, 449 (C.D.Cal.2013). Following the recall,
 6 the plaintiffs filed a class action complaint. The court refused to certify the class, however, because
 7 most class members “suffered no actual injury, let alone a common one resulting from the same
 8 manifest defect.” *Id.* at 450. While everyone temporarily had defective brakes, most did not suffer
 9 any braking injury before the problem was fixed. Similarly, here, the alleged defect in the
 10 VisualDiscovery program was remedied for free, and no user had personal data stolen.

11 *b. No injury: privacy issues*

12 A “loss of privacy,” standing alone, is not “sufficient to state an injury.” *In re Sony Gaming*
 13 *Litig.*, 996 F. Supp. 2d 942, 1004 (S.D. Cal. 2014). Plaintiffs here allege that Superfish, through
 14 VisualDiscovery, had the ability to access users’ personal information. Notably, there is no allegation
 15 that Lenovo had such ability. Nor is there any allegation that Superfish actually accessed any user’s
 16 personal information such as names, passwords, bank accounts, or email addresses. Also lacking is
 17 any proof of misuse of any user’s information. *See LaCourt v. Specific Media, Inc.*, 2011 WL
 18 1661532, *6 (C.D.Cal. Apr. 28, 2011) (mere collection of personal information, without depriving
 19 plaintiff of use of it, and without disclosing it to others, is not injury); *Cahen*, 2015 WL 7566806 at
 20 *14 (collection of information like geographic location and vehicle performance is not a privacy
 21 invasion in the absence of “theft, malicious breach, or widespread accidental publication of sensitive
 22 personally identifying information such as social security numbers or credit card information”);
 23 *McCollough v. Smarte Carte, Inc.*, 2016 WL 4077108, *4 (N.D. Ill. Aug. 1, 2016) (mere “retention”
 24 of fingerprints, which were used as locker keys, is not a “concrete harm”).

25 Plaintiffs also ignore the elephant in the room: Superfish always maintained the anonymity of
 26 every user. The only “user id” was a random string of characters that did not name or identify the
 27 user in any way; it just randomly distinguished that computer from other computers. Therefore, any
 28 information that Superfish viewed was not “personal.” No “privacy” interest was at stake, or abused.

c. No injury: performance issues

The vast majority of purchasers of Lenovo computers liked their computers and gave them favorable reviews, even in the category of “performance.” They used their computers for their normal functions and continue to do so. The class includes thousands of people who opted out, uninstalled VisualDiscovery, returned their laptops for a refund,¹² or purchased their laptops after the Superfish servers were shut down for good in January 2015). There is no evidence of any performance injury for such persons.

Performance issues are actionable only if there was a deception about something that was part of the bargain between Lenovo and consumers. In *Birdsong*, a UCL “omission” case, the allegation was that potential hearing loss due to iPod use diminished the value of what plaintiffs purchased. The Ninth Circuit found that Apple had made no representations that users could safely listen to music at high volumes for extended periods of time. “The plaintiffs’ alleged injury in fact is premised on the loss of a ‘safety’ benefit that was not part of the bargain to begin with.” 590 F.3d at 961. Here, there is no evidence that the alleged “degradation” due to VisualDiscovery lowered the performance to such an extent that any technical specification or industry standard was unmet (as noted, FCC browsing speed guidelines were easily met with VisualDiscovery on board). Simply stated, the laptops performed as represented.

Plaintiffs claim that VisualDiscovery shortened battery life. Yet three of the four Named Plaintiffs experienced no such effect. Anyone who primarily used their laptops plugged in would not have experienced any battery issue. Moreover, the only evidence of a battery effect was on the Yoga 3 models, on which VisualDiscovery was not installed. With respect to battery issues, many (if not all) class members simply were not injured.

Plaintiffs claim that browsing speeds were slowed by VisualDiscovery. There is no evidence that any such effect was generalized – i.e., that it affected all users and all models. Indeed, the effect, if any, would have varied widely due to a multitude of factors that affect internet speed, and most users would not have perceived any effect. (Malek Decl. ¶¶40-43; Lee Decl. ¶¶5-9); *see Del Vecchio*

¹² Named Plaintiff Ravencamp’s brother-in-law was offered a refund or replacement of his computer after the news about Superfish broke. (Ex. 38.) He opted for the free replacement.

1 *v. Amazon.com, Inc.*, 2012 WL 1997697, *8 (W.D. Wash. June 1, 2012) (no injury from cookies
2 where plaintiffs did not notice the alleged effect on performance).

3 Finally, the fact that the browsing speed issue did not arise until December 25, 2014 is fatal to
4 class certification on that claim. Lenovo had no duty to disclose what it did not know. *San Diego*
5 *Hospice v. County of San Diego*, 31 Cal. App. 4th 1048, 1055 (1995) (“the duty cannot arise when, as
6 here, such significant facts are not actually known to the defendant”); *Mazza*, 666 F.3d at 596 (no
7 harm in omission case where class member learned the information before purchase; class that
8 includes such persons cannot be certified). Thus, anyone who purchased a laptop before December
9 25, 2014 – most of the purported class – was not harmed by any “deception” of Lenovo.

10 In summary, no class can be certified here because of the presence of a vast number of
11 unharmed purchasers.

12 B. Individual Issues Predominate.

13 “Pursuant to Rule 23(b)(3) a court may certify a class only if it first determines that the
14 questions of law or fact common to the members of the class predominate over any questions
15 affecting only individual members.” *Zinser*, 253 F.3d at 1189. The predominance criterion of Rule
16 23(b)(3) is “far more demanding” than Rule 23(a)’s commonality requirement. *Amchem Prods., Inc.*
17 *v. Windsor*, 521 U.S. 591, 623-24 (1997). Plaintiffs bear the burden of proving predominance. *See*
18 *United Steel Workers Int’l Union v. ConocoPhillips Co.*, 593 F.3d 802, 807 (9th Cir. 2010).

19 1. **Variations Over Time**

20 In *Kosta v. Del Monte Foods, Inc.*, the plaintiffs sought to certify a class of “all purchasers” of
21 multiple products made by the defendant based upon allegations that the product labels were
22 misleading. 308 F.R.D. at 220-21. In denying certification, the Court noted the numerous variations
23 in the products and labels over time and the fact that some of the alleged misstatements were truthful:
24 “the variations are so great that at least half the challenged products would not evidence the
25 violations alleged.” *Id.* at *229; *see also Berger v. Home Depot USA, Inc.*, 741 F.3d 1061, 1069 (9th
26 Cir. 2014) (variations in tool rental agreements “over time and among the different Home Depot
27 locations” raised individual issues).

28 Here, there were numerous changes over the course of the class period. Superfish produced an

Updated Version of VisualDiscovery which was preloaded on computers beginning in November 2014. Superfish also shut off HTTPS functionality at the servers in September 2014, and all functionality in January 2015. In February 2015, elimination of Superfish from computers in the field began. These changes affected both the security risk and laptop performance.

2. Multiple potential causes

Any performance effects varied from user to user, and for most they were non-existent or imperceptible. For example, on the browsing speed issue, the existence and extent of the effect would be determined by a multitude of variables, including user-controlled factors. (Hunt Dep. at 171; Malek Decl. ¶¶40-43; Lee Decl. ¶10) The effect was not quantifiable to most users. (E.g., Krause Dep. at 61.) Their perceptions of it would be subjective. In each case, if a person alleges that he or she suffered decreased browser speeds, an individual examination would be required to determine (a) whether and to what extent browsing speeds were affected, and (b) what role, if any, VisualDiscovery played – among multiple factors – in causing the speed reduction.

In *Daniel v. Ford Motor Co.*, 2013 WL 3146180 (E.D. Cal. June 18, 2013), plaintiffs alleged that a Ford Focus alignment defect led to premature tire wear. Class certification was denied because individual issues predominated. Whether tire wear experienced by a class member was caused by the defect was not a common question. Tires deteriorate at different rates depending on where and how they are driven – and on driving habits, maintenance practices, and other driver actions. *Id.* at *6. *Accord, Cholakyan v. Mercedes-Benz USA, LLC*, 281 F.R.D. 534, 555 (C.D. Cal. 2012) (“causation problems stand in the way of identifying common issues . . . Environmental circumstances, use factors, and a vehicle owner’s maintenance habits all contribute to whether or not the vehicle’s drains clog”); *Pelman v. McDonald’s Corp.*, 272 F.R.D. 82 (S.D.N.Y. 2010) (many factors other than McDonald’s food, such as other dietary intakes and exercise, could contribute to health effects such that individual issues would predominate).

Here, user actions, choices and environments will affect battery life and browsing speed: there are “an incredible number of variables.” (Hunt Dep. at 171.) Determining whether a user experienced browsing slowness or reduced battery life, and then sorting through the myriad variables to determine causation, will be a highly individualized inquiry.

3. Whether and for whom the laptops worked as advertised

In *Chow v. Neutrogena Corp.*, the court denied class certification because “[t]here are significant individualized questions as to whether the product worked as advertised for each individual class member.” 2013 WL 5629777, *2. In *In re Avon Anti-Aging Skincare Creams & Prods. Mktg. & Sales Practices Litig.*, 2015 WL 5730022, *7 (S.D.N.Y. Sept. 30, 2015), class certification was denied because “[e]ven if some consumers were harmed by Avon’s allegedly false biological claims, others may have been satisfied by the products’ aesthetic effects.”

Thousands of users loved their Lenovo laptops and gave them high ratings for performance. Thousands of users liked VisualDiscovery and used it to purchase items online. Thus, while some people complained, a very crucial issue in the case will be whether, and for whom, the laptops performed as advertised. This is a highly individualized issue.

4. Consent

Lenovo is accused of “wiretapping,” and if either party to the allegedly intercepted communication consented, the wiretapping claims fail. *In re Google Gmail Litigation*, 2014 WL 1102660, *13 (N.D. Cal. March 18, 2014). Even Plaintiffs’ state law privacy, trespass and consumer protection claims in this case hinge on the absence of consent. (e.g., CAC ¶¶ 232, 248 and 256.)

Many users clearly consented to the actions of VisualDiscovery. Pop-ups appeared on their screens, alerting them that an application called “VisualDiscovery” was on their computers. The basic functioning was described on the pop-up: “lets you discover visually similar products and best prices while you shop.” (Ex. 18.) It presented an example in which similar products from a variety of competitor stores were shown. (*Id.*)

The pop-up provided links to Superfish’s Privacy Policy and EULA, which described the functioning of the program in more detail. It presented users with an opportunity to opt out, and some did. But thousands and thousands of users chose to proceed by clicking on pop-up images presented by VisualDiscovery, and in many cases actually buying products using the program. Those people consented to the activities of Superfish.

In addition, as noted by the court in *Google Gmail*, the consent of either party to a communication destroys a wiretap claim. The pop-ups displayed while a user was on designated

shopping websites, like Walmart.com. Plaintiffs argue, for wiretap purposes, that a shopper visiting Walmart.com is “communicating” with Walmart, and Superfish “intercepted” that communication. But Walmart agreed in advance that Superfish could do this. (Ex. 18.) In fact, it paid Superfish for directing shoppers to Walmart.com, if items were purchased. Walmart and 70,000 other online stores unquestionably “consented” to Superfish’s intervention.

Consent will have to be determined on an individual case-by-case basis. In *Gannon v. Network Telephone Services, Inc.*, 628 Fed. App’x. 551, 552 (9th Cir. 2016), the Ninth Circuit affirmed the denial of class certification in a case involving “unauthorized” text messages. The court found that there were three groups who arguably authorized the messages. “To determine liability, the district court would be required to determine whether under each of these different factual scenarios – and undoubtedly others – the caller agreed to receive text messages.” *Id.* The class was overbroad, common issues did not predominate, and members of the class who hadn’t consented would not be “readily ascertainable.” *Id.*

Consent is an “intensely individualized” issue. *Google Gmail*, 2014 WL 1102660 at *21. “[T]he question of implied consent to interceptions prohibited by the Wiretap Act necessarily requires an inquiry into what the party whose communications were intercepted subjectively understood.” *Id.* at *19. Because of the subjectivity and the variety of sources of information, the question of implied consent cannot be answered on a classwide basis.¹³

5. Knowledge by Lenovo

Plaintiffs have admitted that they do not allege any misrepresentation by Lenovo. They claim that Lenovo omitted material information about Superfish and its effects. However, Lenovo had no duty to disclose information it did not know. *San Diego Hospice*, 31 Cal. App. 4th at 1055; *see also In re Sling Media Slingbox Advertising Litig.*, No. 15-cv-15388 (GBD), p. 8 (S.D. N.Y. Aug. 12,

¹³ *See also Backhaut v. Apple*, 2015 WL 4776427, *13-15 (N.D. Cal. Aug. 13, 2015) (consent is a major issue in a wiretap case and is highly individualized); *People v Direct Revenue, LLC*, 862 N.Y.S.2d 816 (N.Y. Super. Ct. 2008) (allegedly deceptive practices relating to the installation of pop-up advertising software on computers: “Given the disclosures made in the EULA regarding the popup ads and respondents’ relevant policies, no GBL § 349 for a deceptive practice may be asserted”); *Torres v. Nutrisystem*, 289 F.R.D. 587, 595 (C.D. Cal. 2013) (denying class certification because of individual inquiries required to determine consent).

2016) (Ex. 50) (dismissing “unwanted advertising” omission claim because “a defendant’s failure to reveal facts about which even it was unaware at the time will not lead to liability”).

It is beyond dispute that Lenovo’s knowledge changed over the course of the class period. For example, Lenovo did not know – and could not have disclosed – until February 19, 2015 that the root certificate in the original version of VisualDiscovery had a weak password that created a security vulnerability. Lenovo did not know – and could not have disclosed – before December 25, 2014 that upload and download speeds might be negatively affected by the original version of VisualDiscovery. Because an omission claim is heavily dependent on knowledge, and there is no uniformity as to Lenovo’s knowledge over time, each user’s claim will have to be analyzed in terms of the state of Lenovo’s knowledge at the time of purchase. This is an individualized inquiry.

6. Variations in laptops and users

There were wide variations in the 43 computer models and how they performed. There were myriad variations in how people used their computers, which affected security as well as performance. Some users do not use the Internet. Some users operated on secure networks. Some were business users. Some removed VisualDiscovery immediately, or at an early stage. Some liked the Software and benefited from its use. Some opted out. Some contacted Lenovo for warranty service. All of these differences impacted users’ exposure and legal rights.

7. Injury and damage

“[T]he Ninth Circuit has also suggested that where damages calculations are not a matter of straightforward accounting, damages can be a factor in the predominance analysis.” *In re Facebook, Inc., PPC Adv. Litig.*, 282 F.R.D. 446, 459 (N.D. Cal. 2012). Here, the variations over time, computer models, software functionality, and user factors mean that fact determinations must be made for every individual to determine the existence and extent of damages.

In *In re Hannaford Bros. Co. Customer Data Security Breach Litigation*, 293 F.R.D. 21, 27-28, 30-33 (D. Me. 2013), the court held that a class could not be certified in a data breach case because individual issues predominated as to injury: whether a person had experienced a fraudulent bank charge, whether the fraudulent charge resulted in a financial loss, and whether the loss was caused by the Hannaford breach instead of other hacking incidents. Moreover, Hannaford had offered

1 a free gift card program and some of the class members had participated while others had not.
 2 Similarly, in *Ebert v. General Mills, Inc.*, 823 F.3d 472, 479 (8th Cir. 2016), a contamination case
 3 with numerous variables from sources of contamination to remediation, the Eighth Circuit held a
 4 class could not be certified because liability and damages would have to be “resolved household by
 5 household.”

6 *Hannaford* and *Ebert* are closely analogous. Injury, causation and remediation will vary from
 7 “household to household.” There are a multitude of variables. Individual issues predominate.

8 C. Plaintiffs Lack A Viable Class-Wide Damages Model.

9 To pass “rigorous scrutiny,” Plaintiffs must show that “damages are capable of measurement
 10 on a classwide basis.” *Comcast*, 133 S.Ct. at 1433. Courts frequently deny 23(b)(3) certification for
 11 lack of a viable damages model. *See, e.g., Lanovaz v. Twinings North America, Inc.*, 2014 WL
 12 1652338, *9 (N.D. Cal. April 24, 2014); *Khasin v. R.C. Bigelow, Inc.* 2016 WL 1213767 (N.D. Cal.
 13 Mar. 29, 2016).

14 The damages model must isolate “the price premium attributable to the offending labels, and
 15 no more.” *Ivie v. Kraft Foods Glob., Inc.*, 2015 WL 183910, *2 (N.D. Cal. Jan. 14, 2015). *Accord*,
 16 *Werdebaugh v. Blue Diamond Growers*, 2014 WL 7148923, *8 (N.D. Cal. Dec. 15, 2014) (granting
 17 motion to decertify, finding that expert’s damages model “cannot isolate the harm (e.g., the price
 18 premium) attributable only to the labeling claims”); *Lanovaz*, 2014 WL 1652338 at *9 (damages
 19 model “must measure only those damages attributable to [the defendant’s conduct]”).

20 Establishing a price premium (amount paid minus the “true” or “fair market” value) is not a
 21 simple proposition – it requires “substantial evidence.” *Lanovaz, Id.*; *see Oscar v. BMW of N. Am.*,
 22 2012 WL 2359964, *6-8 (S.D.N.Y. June 19, 2012) (noting complexity of consumer decisions, factors
 23 affecting pricing, and the “inability to untangle the factors”).

24 Here, the Plaintiffs have proposed a class damages model (“Damages Model”) that assumes
 25 that a computer with VisualDiscovery has zero value. This is, in essence, a prohibited “full refund”
 26 model in disguise.¹⁴ Plaintiffs’ Model ignores mountains of evidence concerning the computers’
 27

28 ¹⁴ “The ‘full refund’ method of calculating restitution has been repeatedly rejected in this district.”
Khasin v. R.C. Bigelow, Inc. 2016 WL 1213767, *3 (N.D. Cal. Mar. 29, 2016).

benefits and value. It ignores the undisputed evidence that no security or privacy harm ever occurred to any user. The Damages Model is built on a “hindsight” fallacy: how the market would have valued a computer on September 1, 2014 had it known about the security vulnerability that first became known on February 19, 2015. But hindsight also tells us that the security vulnerability was only theoretical. This is just the beginning of the problems. The Model is insufficiently rigorous, ignoring major variables such as the changes in VisualDiscovery over time, the vast array of computer configurations and usage patterns, and Lenovo’s evolving knowledge. As detailed in the Declaration of Lenovo’s financial expert Dr. Thomas Varner, Plaintiffs’ Damages Model “contradicts basic economic principles and is deeply flawed.” (Varner Decl., ¶92.)

1. The Damages Model makes patently erroneous assumptions.

The following is a summary of the major flaws in the Damages Model:

<i>Assumption in Damages Model</i>	<i>Established Facts</i>
a. Assigns the same average value to every person’s computer	There were 43 different models, and within each model there were a large number of potential configurations (more memory, different processors, etc.) that affected pricing.
b. Uses a straight-line depreciation method (book value) to determine value per month (Fig. 4)	This “is not based on economic principles of market prices or value to individual users” (Varner Decl., ¶91.)
c. Ignores “option value” when assigning zero value to laptops during time period with VisualDiscovery	This “contradicts basic economic principles that a product with a positive value in the future will have a positive option value today.” (Varner Decl., ¶92.) ¹⁵
d. Ignores benefits provided by Lenovo	Lenovo offered free remedies <u>and</u> a free McAfee subscription. (Varner Decl., ¶99.)
e. Ignores benefits of VisualDiscovery	Thousands of people used the program to save money while shopping online.

¹⁵ There is “no evidence that the value of a Lenovo computer in which VisualDiscovery was installed and subsequently removed is any different from a Lenovo computer in which VisualDiscovery was never installed.” (Varner Decl., ¶¶ 83.) *See Waller v. Hewlett-Packard Co.*, 295 F.R.D. 472, 487-88 (S.D. Cal. 2013) (because of a software update that remedied the alleged defect, plaintiffs “can no longer argue that they paid more for the SimpleSave than they otherwise would have”).

<i>Assumption in Damages Model</i>	<i>Established Facts</i>
f. Assumes the security vulnerability (weak password on root certificate) creates “negative value”	1. The Updated Version did not have this root certificate vulnerability. 2. A vulnerability that is not exploited does not constitute injury. The “negative value” of the security vulnerability is zero, as history proves conclusively.
g. There is “negative value” associated with Superfish obtaining information from users	Superfish obtained no <u>personal</u> information. Privacy was never in issue. No data was stolen or exploited to any user’s disadvantage.
h. All persons were affected, and affected equally, by Superfish “performance” issues	Most people were not affected at all, and the effects varied from person to person and computer to computer, as Named Plaintiffs illustrate.
i. Assumes “full disclosure” to users of things that <u>could not</u> be disclosed	Lenovo’s knowledge evolved over time.

2. The Damages Model is arbitrary, speculative, and unrigorous.

Plaintiffs’ Damages Model ignores the individual variations that permeate this case, as shown above. It does not attempt to quantify market value; it just assumes that the “negative value” of VisualDiscovery balances the positive value of the hardware, leaving a worthless laptop. (MacFarlane Decl., ¶79.) This is not expert analysis; it is guesswork. The “balancing” assumption and turning a blind eye to individual issues makes the Model speculative, arbitrary, and unrigorous. *See Cahen v. Toyota Motor Co.*, 2015 WL 7566806, *11-12 (N.D. Cal. Nov. 25, 2015) (allegation that a software defect, corrected by an update, made the cars “worth less” was “conclusory”: “the market effect is hypothetical”). In *Cahen*, the plaintiffs did not “allege a demonstrable effect on the market for their specific vehicles based on documented recalls or declining Kelley Bluebook values.” *Id.* at *12. The same is true here. Objectivity and documented markets are utterly lacking.

3. The proposed conjoint survey will only measure subjective “willingness to pay,” which will make the problems worse.

Plaintiffs propose to support the Damages Model with a “conjoint” survey that will ask online consumers what they are “willing to pay” for security. This will only further detract from the Model

1 and send it into a tailspin of subjectivity. Conjoint surveys¹⁶ have been held to be insufficient to
 2 support UCL damages models. They do not help establish “market” value but look at only the
 3 “demand” side of the supply-demand equation. (Varner Decl., ¶94.)

4 In *In re NJOY, Inc. Consumer Class Action Litig.*, 120 F. Supp. 3d 1050 (C.D. Cal. Aug. 14,
 5 2015), the court denied class certification under the UCL and CLRA because the damages model was
 6 deficient. Plaintiffs alleged that NJOY omitted material health information from its e-cigarette
 7 packaging. The plaintiffs submitted a damages model based on a conjoint survey that purported to
 8 find “a consumer’s subjective valuation of the purported safety message, measured by their relative
 9 willingness to pay for products with or without the message.” *Id.* at 1122. The court denied class
 10 certification because the damages model was “entirely subjective” and “divorced from the
 11 marketplace.” *Id.* The model “does not permit the court to calculate the true market price of NJOY e-
 12 cigarettes absent the purported misrepresentations.” *Id.* As a result, predominance and superiority
 13 were absent. *Id.* at 1122-23. *See also Saavedra*, 2014 WL 7338930, *4-5 (denying certification;
 14 damages model was “highly flawed” because it “ignored the supply side of the market equation”);
 15 *Herron v. Best Buy Stores, LP*, 2016 WL 1572909, *10 (E.D. Cal. Apr. 19, 2016) (denying class
 16 certification in UCL case alleging omissions regarding laptop battery life; “consumer value” is not
 17 the same as “market value,” which is required by *Comcast*).

18 The problems with “willingness to pay” and “conjoint” surveys are heightened here. The
 19 performance and security impacts of VisualDiscovery were governed by a multitude of variables.
 20 Most consumers perceived no effect, and the effect, if any, would vary across the 43 laptop models in
 21 issue, and from user to user depending on how they used their laptops. There is no way to place a
 22 common “value” on it, and certainly no way to place a “market” value on it. A one-sided survey with
 23 loaded questions will further skew the result. As detailed in the Declaration of Lenovo’s survey
 24 expert Dr. Eugene Ericksen, the conjoint survey proposed by Plaintiffs’ is burdened with serious
 25 flaws, and cannot be used to support a class-wide damages model. It “fails to replicate marketplace

26 ¹⁶ “Conjoint analysis is a statistical technique capable of using survey data to determine how
 27 consumers value a product’s individual attributes – often called the market’s willingness to pay.”
 28 *Saavedra v. Eli Lilly & Co.*, 2014 WL 7338930, *4 (C.D. Cal December 18, 2014). The survey
 proposed by Plaintiffs deals only with security; it does not address alleged laptop performance issues.

conditions,” it “misses key features” in consumer decisionmaking, overstates the risk, and uses “biased and loaded language.” (Ericksen Decl. ¶¶24, 27, 39, 47).¹⁷

4. A close examination of individual issues is required even for statutory damages.

The possibility of statutory damages for certain claims does not solve the problem. First, they are available only for a couple of Plaintiffs’ 12 causes of action – particularly the wiretap/privacy causes of action. Second, statutory damages are discretionary, and the factors inherent in the discretion are highly individualized. *Campbell v. Facebook, Inc.*, 2016 WL 2897936, *14 (N.D.Cal. May 18, 2016) (denying damages class certification because both statutory and actual damages were highly individualized questions).

In *Campbell*, plaintiffs alleged that Facebook scanned private messages for links to web pages, and used the links for commercial purposes. This was alleged to violate wiretap and privacy laws. In addressing statutory damages, Judge Hamilton noted that “statutory damages are not to be awarded mechanically.” *Id.* The court cited six factors to be considered, several of which are individual to each plaintiff. *Id.* The most important factor is “whether or not there was actual damage to the plaintiff.” *Id.* The answer to this question “would vary between class members, and would be answered in the negative for many class members, including one of the named plaintiffs.” *Id.* Overall, “the court is persuaded by the fact that many class members appear to have suffered little, if any, harm, such that a statutory damages award would be a disproportionate penalty.” *Id.* at *15. Disproportionality cannot be assessed on a classwide basis, because “many individual damages awards would be disproportionate, and sorting out those disproportionate damages awards would require individualized analyses that would predominate over common ones.” *Id.* (emphasis added). Thus, even as to statutory damages, individual issues predominate over common ones. *Id.*; *Pagan v. Abbott Laboratories, Inc.*, 287 F.R.D. 139, 149 (E.D.N.Y. 2012) (availability of statutory damages does not obviate the need to perform individualized injury analyses); *Khasin*, 2016 WL 1213767 at *4 (statutory damages require analysis of individual issues connected with actual damages).

¹⁷ Plaintiffs alternatively suggest that an as-yet-unformed “component restitution” model may help determine how much consumers are willing to pay for browsing speed, battery life, and security. This suffers from the same flaws as the main Model and the conjoint survey. See Varner Decl., ¶¶93-96.

1 D. The Named Plaintiffs Cannot Adequately Represent A Class.

2 As noted above, the Named Plaintiffs lack standing. John Whittle never had VisualDiscovery.
3 Messrs. Krause and Ravencamp had the Updated Version. The Named Plaintiffs were primarily
4 business users. (Varner Decl., ¶¶15, 47.) They cannot represent a class.

5 E. The Purported Nationwide “Indirect Purchaser” Class Is Unmanageable and
6 Unascertainable.

7 The purported “Indirect Purchaser” class is nationwide. Nationwide classes are notoriously
8 hard to certify, because state laws differ significantly. “[M]ost of the courts that have addressed the
9 issue have determined that the consumer-fraud and breach-of-warranty laws in the fifty states differ
10 in relevant respects.” *In re Grand Theft Auto*, 251 F.R.D. 139, 147 (S.D.N.Y. 2008) (refusing to
11 certify a nationwide class for this reason); *see Mazza*, 666 F.3d at 591. Also, Lenovo cannot identify
12 the members of this purported class and Plaintiffs have proposed no method to ascertain them.

13 F. In Light of Steps Already Taken, A Class Action Is Not Superior.

14 Given the free and effective remedies provided by Lenovo, and the continuing availability of
15 those remedies for anyone who has chosen not to employ them yet, superiority is lacking. *In re*
16 *Toyota Motor Corp. Hybrid Mktg. Litig*, 288 F.R.D. at 449-50 (recall program); *Waller*, 295 F.R.D.
17 at 447-48 (software update); *see also Pagan*, 287 F.R.D. at 151; *Webb v. Carter’s Inc.*, 272 F.R.D.
18 489, 504–05 (C.D. Cal 2011); *In re PPA Products Litig.*, 214 F.R.D. 614, 622 (W.D. Wash.2003)
19 (refund program); *Chin v. Chrysler Corp.*, 182 F.R.D. 448, 463 (D.N.J.1998) (recall program).

20 **V. CONCLUSION**

21 For all these reasons, class certification should be denied.

22 Respectfully submitted,

23 K&L GATES LLP

24 Dated: August 19, 2016

/s/ Daniel J. Stephenson

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PROOF OF SERVICE

I am employed in the county of Los Angeles, State of California. I am over the age of 18 and not a party to the within action; my business address is K&L GATES LLP, 10100 Santa Monica Boulevard, Eighth Floor, Los Angeles, CA 90067.

On August 19, 2016, I served the document(s) described as: LENOVO'S OPPOSITION TO PLAINTIFFS' MOTION FOR CLASS CERTIFICATION on the interested parties in this action as follows:

☒ **BY ELECTRONIC SERVICE:** by transmitting a true copy of the foregoing document(s) to the e-mail addresses set forth as stated on the attached service list.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on August 19, 2016, at Los Angeles, California.

/s/ Daniel J. Stephenson
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5:15-md-02624-RMW

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